

Ways for Further Technical Progress of Means of Communication (Cont.)

Call Nr: TK 5101.F 35

VI. Tasks in the field of technical information and  
propaganda

32

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Card 4/4

~~FROLOV, B. A.~~

The international consultative committee on telephony and  
telegraphy (MLTT). Elektrosviaz' 11 no.6:64-69 Je '57.  
(Geneva--Telecommunication--Congresses) (MLRA 10:6)

AUTHOR: Frolov, P.A., Engineer

EC7/111-58-11-31/36

TITLE: The Development of Science and Communication Engineering in the Chinese People's Republic (Razvitiye nauki i tekhniki svyazi v Kitayskoy Narodnoy Respublike)

PERIODICAL: Vestnik svyazi, 1958, <sup>15</sup> Nr 11, pp 32-34 (USSR)

ABSTRACT: The author reviews briefly the rapid industrial development of China and then turns to the development of communication facilities. Multi-channel condensing equipment is being introduced on Chinese communication lines. In several large towns there are factories for symmetrical and coaxial cables. Automatic equipment is used on telegraph and telephone exchanges. A teletype system is under development in which the Chinese characters may be used. Language difficulties are the reason for increased efforts in the development of phototelegraph equipment. On 30 September, the new building of the Central Telegraph Office in Peking was inaugurated in the presence of the Director of the USSR Central Telegraph Office, A.L. Guzovskiy. The construction of automatic telephone exchanges is of special importance. Experimental TV broadcasts are transmitted from the new radio station building in Peking. The students of the Peking Institute of Communications

Card 1/2

007/111-58-11-31/36

The Development of Science and Communication Engineering in the Chinese  
People's Republic

have built a low-power TV transmitter for instruction purposes under the direction of A.F. Sarinzon, Candidate of Technical Sciences. During the past years, the development of the radio industry has been speeded up with aid from the USSR. At the same time, branches of the Peking Scientific Research Institute of the Ministry of Communications are in all districts. They have the task of assisting the local authorities in solving their communication problems and in setting up factories for radio and communication equipment. For increasing the qualifications of the approximately 250,000 communication workers in China, there are a number of technical publications dealing with theoretical research, practical experience, and suggestions for improvement. There are 5 photos and 1 sketch.

Card 2/2

YEFIMOV, I.Ye.; KLIMOV, M.A.; LAKERNIK, R.M.; SHARLE, D.L.; PROLOV,  
P.A., otv.red.; BOGACHEVA, G.V., red.; KARABILOVA, S.F.,  
tekhn.red.

[Construction and electric characteristics of communication  
cables] Konstruktivnye i elektricheskie kharakteristiki  
kabelei svyazi. Moskva, Gos.izd-vo lit-ry po voprosam svyazi  
i radio, 1959. 541 p. (MIRA 13:3)  
(Electric cables)

NIKOL'SKIY, Konstantin Konstantinovich; PROLOV, P.A.

otv. red.; RYAZANTSEVA, M.M., red.; SLUTSKIN, A.A., tekhn.  
red.

[Drainage protection of metal shielded communication lines  
to prevent corrosion] Drenazhnaya zashchita metallicheskih  
kabelei svyazi ot korrozii. Moskva, Gos. izd-vo lit-ry po  
voprosam svyazi i radio, 1961. 54 v. (MIRA 14:5)  
(Electric lines--Underground)

~~FROLOV~~, Pavel Alekseyevich; TYULYAYEV, A.N., otv. red.; SVERDLOVA,  
I.S., red.; SLUTSKIN, A.A., tekhn. red.

[Small coaxial communication cables] Malogabaritnye koaksial'-  
nye kabeli svyazi. Moskva, Svyaz'izdat, 1962. 76 p.  
(MIRA 15:9)

(Coaxial cables)

FROLOV, P.A.

Small coaxial cables. Vest. svyazi 22 no.2:3-4 F '62.

(MIRA 15:2)

1. Nachal'nik kabel'noy laboratorii Tsentral'nogo nauchno-  
issledovatel'skogo instituta svyazi.

(Coaxial cables)



L 9830-63

EWP(j)/EWT(m)/BDS/ES(w)-2--A7FTC/ASD/SSD--Pc-L/Pab-L--RM/MAY

ACCESSION NR: AP3000534

S/0106/63/000/005/0049/0057

67

AUTHOR: Parikozhka, I. A.; Pugach, A. B.; Berkman, N. A.; Frolov, P. A.

TITLE: Insulation-monitoring system for plastic-coated communication cables

SOURCE: Elektrosvyaz', no. 5, 1963, 49-57

TOPIC TAGS: communication cables, insulation-fault location in cables;  
insulation-fault signaling

ABSTRACT: Bridge-type fault-location methods are unreliable when applied to 200-250-km-long sections of a small-size cable between two attended repeater stations (ARS). A new method is offered in which an insulation-fault signaling device is installed at every unattended repeater station (URS), the distance between adjacent stations being a few miles. The device includes a TKh-3B cold-cathode tube and monitors continuously the insulation between two pilot wires in the cable. A transistorized locator is installed at every ARS and serves to indicate the particular URS section where the insulation fault has occurred. The system has been in trial operation for over one year. It is applicable

Card 1/2

L 9830-63

ACCESSION NR: AP3000534

also to lead- and aluminum-sheathed cables if special pilot wires are provided. The advantages claimed are: quick location of the faulty section while the insulation resistance of the working wires is still high; the monitoring system is well protected against power-frequency and pulse interference and against earth currents; the indicated number of the faulty section can be checked and rechecked; the system reliability is guaranteed by light working conditions and by remote-controlled checking of its components. Orig. art. has: 7 equations and 6 figs.

ASSOCIATION: none

SUBMITTED: 12May62

DATE ACQ: 03Jun63

ENCL: 00

SUB CODE: CO

NR REF SOV: 005

OTHER: 000

FR AID: 29Aug63

*ja/nh*

Card 2/2

FROLOV, P.A.; NIKOL'SKIY, K.K.

Use of chemical materials in the telecommunication industry.  
Vest. svyazi 23 no.6:16-17 Jo '63. (MIRA 16:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut svyazi  
Ministerstva svyazi SSSR.

FROLOV, P.A.

Modern small coaxial cables. Elektrosviaz' 18 no.5:36-44. Ja '64.  
(MIRA 18:1)

KULESHOV, Vasilii Nikolayevich; SHVARTSMAN, Vladimir Osipovich;  
FROLOV, P.A., otv. red.; BOGACHEVA, G.V., red.; BATRAKOVA,  
T.A., red.

[Electrical measurements of long-distance cable lines]  
Elektricheskie izmereniia mezhdugorodnykh kabelei sviazi.  
Moskva, Izd-vo "Sviaz'," 1964. 263 p. (MIRA 17:5)

FROLOV, P.A.; KASHUTIN, A.A.

Single quadded high-frequency cables with plastic sheathing.

Vest. svyazi 24 no.1:3-4 Ja '64.

(MIRA 17:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut svyazi Ministerstva svyazi SSSR.

FROLOV, P.A.; RUDAKOV, M.Ye.

Aerial communication cables. Elektrosviaz' 18 no.10:71-75  
O '64. (MIRA 17:12)

KURBATOV, Nikolay Dmitriyevich; FROLOV, Pavel Alekseyevich; TYULYAYEV,  
A.N., otv. red.; KOMAROVA, Ye.V., red.

[Stability of the parameters of long-distance communication  
cables] Stabil'nost' parametrov kabelei dal'nei sviazi. Mo-  
skva, Sviaz', 1965. 103 p. (MIRA 18:4)



LINSKIY, V.B.; FROLOV, P.A.

Topological structure of the domains of stability of a self-adjoint system of differential equations with periodic coefficients. Dokl. AN SSSR 161 no.4:764-766 Ap '65. (MIRA 18:5)

1. Moskovskiy fiziko-tehnicheskii institut. Submitted November 5, 1964.

L 01974-67 EWT(d)/FBS-2/EAT(m)/EWP(v)/EWF(j)/T LUT(c) W/RM  
ACC NR: AM6023689 Monograph

UR

Nikol'skiy, Konstantin Konstantinovich; Frolov, Pavel Alekseyevich

Use of polymeric materials in long distance communication (Primeneniye polimernykh materialov v tekhnike dal'ney svyazi) Moscow, Izd-vo "Svyaz'", 65. 0109 p. illus., biblio. (At head of title: Ministerstvo svyazi Soyuza SSR. Tekhnicheskoye upravleniye) 12,000 copies printed. Series note: Lektsii po tekhnike svyazi

TOPIC TAGS: polymer chemical, communication equipment, communication industry, communications wire, polymer chemistry, plastic

PURPOSE AND COVERAGE: Application of polymer materials (plastics and others) to long distance communication technology is presented in a considerable detail. Starting with a general explanation of polymer chemistry, the authors proceed to the properties and characteristics of polymer materials used in communications. They then continue by describing the individual polymer materials and their uses and point the direction for future research and development. The book is intended for engineers and technicians working in the design, construction, and utilization of the communications enterprises.

TABLE OF CONTENTS:

Foreword - - 3  
Introduction - - 4  
Ch. 1. Basic concepts pertaining to polymer materials

Card 1/3

UDC: 678.06:621.395.4

L 0199L-67

ACC NR: AM6023689

Ch. 2. Properties of main polymer materials used in long distance communication technology

- 2.1. General information - - 13
- 2.2. Polyethylene - - 16
- 2.3. Polypropylene - - 22
- 2.4. Polyisobutylene - - 24
- 2.5. Polyvinyl chloride - - 25
- 2.6. Polystyrole and styroflex - - 28
- 2.7. Fluoroplastics<sup>12</sup> - - 29
- 2.8. Vinyl plastic<sup>15</sup> - - 33
- 2.9. Fiber-glass reinforced plastics - - 35
- 2.10. Foamed plastics - - 36
- 2.11. Electrotechnical sheet laminate (resin-saturated paper) - - 38
- 2.12. Mipor-N<sup>12</sup> - - 39
- 2.13. Capron<sup>15</sup> - - 40
- 2.14. Organic glasses - - 41
- 2.15. Pressed powders and pressed materials - - 42
- 2.16. Epoxy resins - - 44
- 2.17. Epoxy compounds - - 45
- 2.18. Polyester resin PN-1<sup>12</sup> - - 49
- 2.19. Synthetic glue - - 50
- 2.20. Bitumen - - 56

Card 2/3

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Card 3/3

Frolov, P. F.

TRANSLATION FROM: Referativnyy zhurnal, Elektrotehnika, 1957, 112-2-4334  
Nr 2, p. 260 (USSR)

AUTHOR: Frolov, P. F.

TITLE: The Problem of Amplitude Fluctuations of a Vacuum Tube Oscillator Under Certain Operating Conditions (K voprosu o fluktuatsiyakh amplitudy lampovogo generatora pri nekotorykh rezhimakh yego raboty)

PERIODICAL: Uch. zap. Kuybyshevsk, gos. ped. in-ta, 1956, Nr 14, pp. 163-177

ABSTRACT: The results are given of research on the amplitude fluctuations of a vacuum tube oscillator under various operating conditions. These amplitude fluctuations were computed according to formulae which were derived on the assumption that these fluctuations are caused by the shot effect. Fluctuations determined by measurement differed considerably from those calculated from formulae.  
L.E.K.

Card 1/1

USSR/Human and Animal Physiology (Normal and Pathological).  
Blood Pressure. Hypertension.

T-4

Abs Jour : Ref Zhur - Biol., No 16, 1958, 74810

Author : Frolov, P.F., Denisova, Z.A.

Inst : Ukrainian Scientific-Research Institute of Clinical  
Medicine.

Title : Evaluation of Functional Condition of Cardio-Vascular  
System in Various Stages of High Blood Pressure.

Orig Pub : Materialy po obmenu nauchn. inform. Ukr. n.Oi. in-t  
klinich. meditsiny, 1957, vyp. 1, 138-140.

Abstract : No abstract.

Card 1/1

- 66 -

FROLOV, P. F.

"Measuring Ultrasonic Pressure in Liquid Media"

report presented at the 13th Scientific Technical Conference of the Kuybyshev  
Aviation Institute, March 1959.

MEN'SHIKH, M.F.; FROLOV, P.F.; PAVLOV, D.F., red.; MIKHEYEV, N.I.,  
red.

[Short handbook on physics] Kratkoe posobie po fizike.  
Kuybyshev, Kuybyshevskoe knizhnoe izd-vo, P5.1. 1964, 79 p.  
(MIRA 19:1)

1. Kuybyshev. Aviatsionnyy institut.

FROLOV, P.G.

Troitskiy, S.K. and Frolov, P.G. "Materials on the biology and importance in fishery of the three-spined stickleback (*Coasterosteus aculeatus* L.) in the Kuban estuaries," Trudy Rybovodno-biol. laboratorii Azherryvoda, Issue 1, 1949, p. 183-204, - Bibliog: 16 items

SC: 6-5241, 17 December 1953, (Letopis 'zhurnal 'nykh Statey No. 26, 1949).



USSR / Farm Animals. Honey Bee

Q-7

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12206

Author : Frolov P. G.

Inst : -

Title : On the Keeping of Bee Families in Hives Equipped  
with a Warming and Cooling Device (O soderzhanii  
pchelinykh semey v gnezdakh s teplym i kholodnym  
zanosom)

Orig Pub: Pchelovodstvo, 1957, No 5, 5-17

Abstract: On the basis of forty years of experience, the author arrived at the conclusion that under conditions prevailing in the Moscow Oblast' the greatest effectiveness in bee-keeping is being achieved by the use of the warming method from spring to June, that of the cooling one from June to August, and of the warming method again from August on.

Card 1/1

53

NAZARETOVA, N.B.; SUKHANOV, V.P.; BASHILOV, A.A.; FROLOV, P.K.

Obtaining intermediate distillate fractions in thermal cracking  
units. Trudy GrozNII no.4:130-141 '59. (MIRA 12:9)  
(Cracking process)

*FROLOV*

*P.M.*

BRZHONOVSKIY, V.F., inzhener; GUDKEVICH, L.A., inzhener; BOGALIN, A.O.,  
inzhener; SLOUSHECHER, K.M., inzhener; FROLOV, P.M., inzhener.

Block-type boiler with an output of 90 tons per hour. Elek.sta.  
25 no.11:21-30 M '54. (MIRA 7:11)  
(Steam boilers)

FROLOV, P.M.; KORVIN, O.P.

Using underground waters of Mesozoic and Tertiary sediments in the  
plains of northeastern Kazakhstan. Izv. AN Kazakh. SSR. Ser. geol.  
no. 1:75-85 '59. (MIRA 12:7)

(Kazakhstan--Water, Underground)

FROLOV, P.M.

Recent data on the hydrogeology of the Tertiary sediments of  
northern Kazakhstan. Sov.geol. 4 no.5:142-146 My '61.  
(MIRA 14:6)

1. Gidrogeologicheskiy trest.  
(Kazakhstan--Water, Underground)

KARDYSH, V.G.; MURZAKOV, B.V.; FROLOV, P.M., red.

[Present-day foreign drilling equipment for drilling hydro-  
geological wells] Sovremennoe zarubezhnoe burovoe oborudova-  
nie dlia prokhodki gidrogeologicheskikh skvazhin. Moskva,  
M-vo geologii i okhrany nedr SSSR, 1962. 46 p.  
(MIRA 17:4)

BORISOVA, A.A.; KARPOLYAYEV, M. I.; KATTERFELD, G.M.; KOZLOV, V.V.; KOZYREV, N.A.;  
KOLINA-SITICHENYI, I. K.; LYUBARSKIY, K.A.; SUSLOV, A.K.; FROLOV, P.M.;  
KHODAK, Yu.A.

Nikolai Ivanovich Kucherov, 1891-1965; obituary. Izv. Vses. geog.  
ob-va 97 no.4:388-390 Ju-Ag '65. (MIRA 7.8:8)

FROLOV, P.N.

Presses for making large diameter pipes. Biul. tekhn.-ekon. inform.  
no. 4:14-16 '58. (MIRA 11:6)  
(Hydraulic presses) (Sheet-metal work)



PHOLOV, P.N.

Modernizing control systems of hydraulic presses with  
transmission from a pump and accumulator station. Kuz.-  
shtam.proizv. 1 no.11:37-38 N '59. (MIRA 13:3)  
(Hydraulic presses) (Automatic control)

S/118/60/000/007/002/004  
A16 1/A029

AUTHOR: Frolov, P. N., Engineer

TITLE: Automatic Change of Specific Pressure in the Work Process on Hydraulic Presses <sup>14</sup>


PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, 1960, No. 7, pp. 15-17

TEXT: A new hydraulic press system is described, considerably simpler than the design used by Kolomenskiy zavod tyazhelogo stankostroyeniya (Kolomna Heavy Machine Tools Plant), and destined for modernization of bottom-drive presses. The 4,000-ton press (Figure 1) is designed for squeezing fluid out of wet cardboard in pile with interlaid fabric and metal sheets. The pressure changes automatically during the entire pressing cycle produced by a controlled-discharge pump and a pressure automatic. The system may work semiautomatically or with resettings. The nominal pressure exerted on cardboard is 40 kg/cm<sup>2</sup>; the dimensions of the mobile plate are 4,000 x 2,400 mm; the crosshead travel 750 mm. Details of the press operation are given. The system includes the mentioned controlled-discharge pump ("10" in Figure 1), two vane pumps ("18 and "19"), and a Card 1/2

S/118/60/000/007/002/004  
A161/A029

Automatic Change of Specific Pressure in the Work Process on Hydraulic Presses

piston pump ("20"), and an electromagnet controlling a reversible slide valve. Pressure in the pressure main can be raised from 0 to 360 kg/cm<sup>2</sup>. An analogous design for 1,000 ton press (Figure 2) is simpler, with work pressure of 200 kg/cm<sup>2</sup> obtained directly from the pump "19" in the drawing, i.e., the pressure transformer and distributing system are eliminated. After the set maximum pressure is reached, the electrocontact manometer ("5") signalizes to switch off the pumps ("19" and "14") and turn on two electromagnets; the piston ("1") with the press plate and the carriage with cardboard go down by gravity displacing oil through a drain valve. The work cycle ends and at the same moment the electro-hydraulic system prepares for the following cycle. There are 2 figures.



Card 2/2

FROLOV, P.N.

Multiple ram eccentric pumps manufactured by the "Electraulic"  
firm, Kuz.-shtam. proizv. 2 no.9:40-41 S '60. (MIRA 13:9)  
(Pumping machinery)

FRIOLOV, P.N.; DAVIDOVA, R.G.

Hydraulic forging press of 800-ton capacity manufactured by the  
firm "Fielding." Kus. shtam. proizv. 2 no.12:38-44 D '60.  
(MIRA 14:3)

(Hydraulic presses)

FROLOV, P.N.

Small hydraulic presses used in foreign countries. Kuz.-shtam.proizv.  
6 no.1:46-47 Ja 64. (MIRA 17:3)

L 16089-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWP(t)  
 S/3000/64/000/008/0036/0042  
 ACCESSION NR: AT4048350 Pf-4 JD/HW

AUTHOR: Frolov, P.N. (Engineer), Matveyev, I.B. (Candidate of technical sciences), Davy'dova, R.G. (Engineer), Gutsalenko, F.F. (Engineer)

TITLE: Hydraulic impact presses

SOURCE: Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogomashinostroyeniya. Nauchnyye trudy, no. 8, 1964. Novoye v kuznechno-shtampovochnom proizvodstve (Latest developments in the forging industry), 36-42

TOPIC TAGS: hydraulic press, impact press, vibration forging, metal forging, cermet forging

ABSTRACT: The paper describes a theoretical investigation of a new type of hydraulic press which produces vibration in the forging dies by periodically supplying a fluid into the working cylinder and subsequently draining it. The plunger employed has a small stroke of 2-5 mm with respect to the cylinder, thereby decreasing significantly and making constant the losses due to compression of the fluid; the plunger, however, together with the cylinder, can be displaced for any given distance. The working pressure is obtained due to the inertia in the upward motion of the working cylinder, which has considerable mass (the weight of the cylinder exceeds the weight of the plunger 10-20 times).

Card 1/3

L 16089-65

ACCESSION NR: AT4048350

The advantage of this press is not only the application of a periodic impact load to the workpiece, which decreases the resistance of metals to deformation by 20-30% and the resistance to deformation of friable materials by a factor of 3 to 5, but also the considerably smaller weight of the press. The first experimental model of the press giving a working pressure of 5.3 tons was constructed in 1959. A description is given of a later model constructed during 1960-1961 in the authors' Institute. The following basic elements determining the efficiency and originality of the pump are described: The hydraulic system of the pulse mechanism, the design of the cylinder and the plunger, the hydroinertial head and also the construction of two valves of reciprocating action — the pulsating valve and the draining valve. The remaining elements of the press can be those commonly used and are not described. Experiments were made involving pressing metals and refractory mixtures at a frequency of vibration of 120-400 vibrations per minute (2 to 6.7 cps). The vibration frequency can be increased to 800-1000 vibrations per minute (13.3-16.7 cps) for a plunger stroke of 2-5 mm. The vibration can be smoothly controlled. For the hydraulic drive, pumps having pressures within the limits of 200-400 kg/cm<sup>2</sup> and a discharge rate of 0.84-1.67 liters/sec. can be used. The

Card 2/3



L 16089-65  
ACCESSION NR: AT4048350

calculated working pressure of the press described corresponds approximately to 200 tons of static pressure for a maximum pressure in the system of 400 kg/cm<sup>2</sup>. It is concluded that presses of this type can be used for pressing not only friable refractory mixtures but also metals and cermets. Orig. art. has: 6 formulas and 3 figures.

ASSOCIATION: Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogo mashinostroyeniya, Moscow, (Experimental Scientific Research Institute of Forging Machinery)

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, M4

NO REF SOV: 000

OTHER: 000

Card 3/3

VASTLYN, B.P.; FROLOV, P.N.

New type of a 36-ton forging press. Aus.-zhurn. prostr. 7 no.8:  
29-32 Ag '65. (1965:18:9)

FROLOV, P.P.

Production of an electromagnetic field. Izv. AN SSSR. Ser.  
geofiz. no.7:1076-1080 J1 '63. (MIRA 16:8)

1. Universitet druzhby narodov im. Patrisa Lumumby, Predstavleno  
Chlenom redaktsionnoy kollegii Izvestiy AN SSSR, Seriya  
geofizicheskaya, B.M. Yanovskim.  
(Electromagnetic prospecting)

**FROLOV, P.P.**, kandidat tekhnicheskikh nauk.

Analyzing the work of compressor stations in Ural mountains mining enterprises. Gos. zhur. no.12:23-25 D '56. (MIRA 10:1)

1. Sverdlovskiy gornyy institut.  
(Ural Mountain region--Mining engineering) (Compressors)

PROLOV, P.P., dots.

Compressed air supply for open pits. Izv. vys. ucheb. zav.; gor. zhur.  
no. 2:118-123 '58. (MIRA 11:5)

1. Sverdlovskiy gornyy institut.  
(Strip mining) (Compressed air)

PROLOV, P.P., dotsent, kand.tekhn.nauk

Performance analysis of B-300-2K compressors. Gor.zhur. no.10:  
52-53 0 '60. (MIRA 13:9)

1. Sverdlovskiy gornyy institut.  
(Air compressors)

FROLOV, Petr Prokhorovich, dotsent. Prinimali uchastiye: ZVYAGIN, V.S., dotsent; PETROV, I.P., dotsent. VESELOV, A.I., prof., doktor tekhn.nauk, retsenzent; BOROKHOVICH, A.I., dotsent, retsenzent; KHOMITSEVICH, K.I., otv.red.; D'YAKOVA, G.B., red.izd-vs; SABITOV, A., tekhn.red.; LOMILINA, L.N., tekhn.red.

[Mine compressor equipment] Rudnichnoe kompressornoe khoziaistvo.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961.  
227 p. (MIRA 14:4)

(Air compressors)

FROLOV, Petr Prokhorovich. Prinimal uchastiye PETROV, I.P.,  
kand. tekhn. nauk, dots.; PLOTNIKOV, K.S., otv. red.;  
D'YAKOVA, G.B., red.izd-va; ZHIVRINA, G., tekhn. red.

[Manual on mine compressor plants] Spravochnoe rukovod-  
stvo po rudnichnomu kompressorному khoziaistvu. Moskva,  
Gosgortekhnizdat, 1963. 195 p. (MIRA 17:2)



TEKHONOV, A.N.; SHUGARTSEVA, O.A.; FROLOV, P.P.

Receiving power of the method of magnetic field establishment.  
Izv. AN SSSR Fiz. zem. re. 5-42-50 '65.

(MIRA 1826)

1. Geologicheskii institut AN SSSR.

FROLOV, P.P.

Asymptotic behavior of magnetic field formation in a stratified medium. Izv. AN SSSR. Fiz. zem. no.1:59-66 '65.

(MIRA 18:5)

1. Universitet druzhby narodov imeni P. Lurumby.

FROLOV, P. T., kand. tekhn. nauk

Self-propelled electric dump cars are a new type of transportation for open-pit mines. Sbor. trud. MISI no.39:425-429 '61.  
(MIRA 16:4)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni V. V. Kuybysheva.

(Mine railroads—Cars)

FROLOV, P. T. Cand. Tech. Sci.

Dissertation: "Belt Conveyers of Great Length for Moving Earth Masses." Moscow Order of the Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev, 2 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

FROLOV, P. T.

PA 26/49142

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000513810007-6

USSR/Engineering (Contd)  
Mostly theoretical statements urging thorough  
mechanization of earth-moving operations as  
best method for fulfilling plans.

Jan 49

26/49142

amount of earth-moving work accomplished  
annually is good index to over-all construc-  
tion activity. In 1947, 187 million cu m of  
earth were moved. Plans for 1950 call for 980  
million cu m. Some facts and figures, but

"Stroitel' Prom" No 1

Problems in the field of the Mechanization of  
Excavation Work in the MSPTI System," P. T.  
Frolov, Cand Eng Sci, 1 1/2 pp

USSR/Engineering  
Construction, Underground  
Excavators

Jan 49

26/49142

FROLOV, P.T., kand.tekhn.nauk

Objectives in the mechanization of earthmoving operation in  
the system of the Ministry of Construction of Heavy Industry  
Establishments. Stroi.prom. 27 no.1:16-17 Ja '49.  
(MIRA 13:2)  
(Earthmoving machinery)

FROLOV, P.T., kandidat tekhnicheskikh nauk.

Self-propelled electric dump cars for open-pit mining. Mekh. trud.  
rab. 7 no.11:27-29 D '53. (MLRA 6:12)

... (Mine railroads--Cars)

FROLOV, P.T., kandidat tekhnicheskikh nauk.

Best methods of mechanizing earthwork in constructing medium  
depth channels. Mekh.stroi. 11 no.7:3-8 J1 '54. (MLRA 7:7)  
(Earthwork)

SOKOLOV, K.M. YEVSTAFEYEV, S.V.; ROSTOTSKIY, V.K.; STANKOVSKIY, A.P.;  
VARENIK, Ye.I.; ONUFRIYEV, I.A.; SVESHNIKOV, I.P.; UKHOV, B.S.;  
BAUMAN, V.A.; BARSOV, I.P.; BASHINSKIY, S.V.; BOYKO, A.G.; VALITSKIY,  
I.I.; ZAPOL'SKIY, V.P.; ZOTOV, V.P.; IVANOV, V.A.; KAZARINOV, V.M.;  
LEVI, S.S.; MALOLETKOV, Ye.K.; MERENKOV, A.S.; MIROPOL'SKAYA, N.K.;  
OSIPOV, L.G.; PEREL'MAN, L.M.; PETROV, G.D.; PETROV, N.M.; POLYAKOV,  
V.I.; VATSSLAVSKAYA, L.Ya.; VAKHRAMEYEV, S.A.; VERZHITSKIY, A.M.;  
VLASOV, P.A.; VOL'FSON, A.V.; VOSHCHININ, A.I.; DZHURKOVSKIY, N.N.;  
DOMBROVSKIY, N.G.; YEFIFANOV, S.P.; YEFREMEENKO, V.P.; ZELICHENOK, G.G.;  
ZIMIN, P.A.; POPOVA, N.T.; ROGOVSKIY, L.V.; REBROV, A.S.; SAPRYKIN, V.A.;  
SOVALOV, I.G.; SOSHIN, A.V.; STARUKHIN, N.M.; SURENYAN, G.S.; TOLORAYA,  
D.F.; TROITSKIY, Kh.L.; TUSHNYAKOV, M.D.; FROLOV, P.T.; TSIRKUNOV, I.P.

Andrei Vladimirovich Konorov; obituary. Mekh. stroi. 16 no.1:32 Ja  
'59. (MIRA 12:1)

(Konorov, Andrei Vladimirovich, 1890-1958)



FROLOV, Petr Terent'yevich, kand. tekhn. nauk, prof.; GINKEVICH, Petr Stepanovich, kand. tekhn. nauk, dots.; YEFIMOV, Sergey Grigor'yevich, kand. tekhn. nauk, dots.; BAUMAN, V.A., retsenzent; SHADRIN, I.A., prof., retsenzent; DUBINSKIY, P.F., doktor tekhn. nauk, prof., retsenzent; MONAKHOV, I.G., dots., retsenzent; FIITSUKOV, M.A., dots., retsenzent; CHERNYAKOV, L.M., dots., retsenzent; ANDREYEV, B.K., dots., retsenzent; SHADRINA, G.N., dots., retsenzent; VAYNSON, A.A., nauchnyy red.; SHAROVA, Ye.A., red. izd-v4; VORONINA, R.K., tekhn. red.

[Principles of the mechanization construction work] Osnovy mekhanizatsii stroitel'nykh rabot. Moskva, Vysshaya shkola, 1962. (MIRA 16:4)  
299 p.

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Bauman). 2. Kafedra stroitel'nogo proizvodstva Moskovskogo instituta inzhenerov zheleznodorozhnogo transporta (for Dubinskiy, Monakhv, Fiitsukov, Chernyakov, Andreyev, Shadrina). 3. Zaveduyushchiy kafedroy stroitel'nogo proizvodstva Moskovskogo instituta inzhenerov zheleznodorozhnogo transporta (for Shadrin).

(Construction equipment) (Automatic control)

EROLOV, Petr Terent'yevich; CHUDAKOV, Konstantin Petrovich;  
ZELENKOV, G.I., kand. tekhn. nauk, dots., retsenzent;  
MALOLETKOV, Ye.K., inzh., retsenzent; YEFREMEENKO, V.P.,  
inzh., nauchnyy red.; KROMOSHCH, I.L., inzh., nauchnyy  
red.; GOL'DRERG, T.M., tekhn. red.

[Operation of construction equipment] Eksploatatsiya  
stroitel'nykh mashin. Moskva, Gosstroilizdat, 1963. 279 p.

(MIRA 16:6)

1. Zaveduyushchiy kafedroy "Eksploatatsiya dorozhnykh mashin"  
Moskovskogo avtodorozhnogo instituta (for Zelenkov). 2. Nachal'-  
nik laboratorii eksploatatsii stroitel'nykh mashin Nauchno-  
issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu Akademii stroitel'stva i arkhitektury SSSR (for Maloletkov).

(Construction equipment)

FROLOV, P.T., prof.; GRINKEVICH, P.S., kand.tekhn.nauk

Volga Hydroelectric power Station (22d Congress of the CPSU).

Mekh. stroi. 21 no.1:28-29 Ja '64.

(MIRA 17:4)

FROLOV, P. V.

"New Method of Getting a Load Impulse for Boiler Feed-Water Regulators," Elek.  
sta., 23, No.5, 1952

GRISHCHENKO, S.S.; FEDOROV, N.A.; ~~PROLOV~~, P.V., inzhener, redaktor;  
PETERSON, M.M., tekhnicheskii redaktor.

[How a ship is built] Kak stroitsia sudno. Leningrad, Gos.  
soiuznoe izd-vo sudostroitel'.promyshl., 1954. 81 p. (MLRA 8:11)  
(Shipbuilding)

ACCESSION NR: AP4043305

S/0032/64/030/008/1021/1021

AUTHORS: Sivergin, Yu. M.; Russiyan, Ye. K.; Frolov, P. V.; Bukolov, Yu. Ye.

TITLE: Apparatus for determining the hardness of plastics

SOURCE: Zavodskaya laboratoriya, v. 30, no. 8, 1964, 1021

TOPIC TAGS: polymer plastic, plastic hardness, hardness determination, motor RD 09, hardness tester

ABSTRACT: An apparatus was designed for testing the hardness of polymer plastics under identical conditions (see Fig. 1 of the Enclosure). It delivers loads of 0.5-48.5 kg in 0.5-kg intervals and produces plastic deformation at the rate of 0.04 mm/sec. Its activating mechanism 2, consisting of a reversing motor RD-09 and a reducer, activates the spindle 3 carrying indenter 4. Lever 5 bears against column 6. Loads 7 are suspended above the long arm of the lever and are lowered or raised by handles 9. Shaft 10 bears through prism 11 against the short arm of the lever. This shaft, carrying the object table 15, is moved vertically by an electromagnet under the influence of the applied load. Spindle movement is gauged by indicator 16 and shaft movement by indicator 17. The motor is connected and disconnected by handles 18 and 19. In operation, shaft 20 is lowered when

1/3

Card

ACCESSION NR: AP4043305

the necessary loading is applied. The test specimen resting on table 15 is brought into contact with the indenter by nut 21, and the actuating mechanism is started with switch 22. The indenter is then impressed into the specimen at a constant rate until the stress in the material becomes equal to the applied load. At this moment the apparatus is automatically switched off and the table is freed by the electromagnet. Shaft 20 is next lifted and the motor is reversed. Orig. art. has: 1 figure.

ASSOCIATION: Institut khimicheskoy fiziki, Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 00

SUB CODE: IE, MT

NO REF SOV: 000

ENCL: 01

OTHER: 000

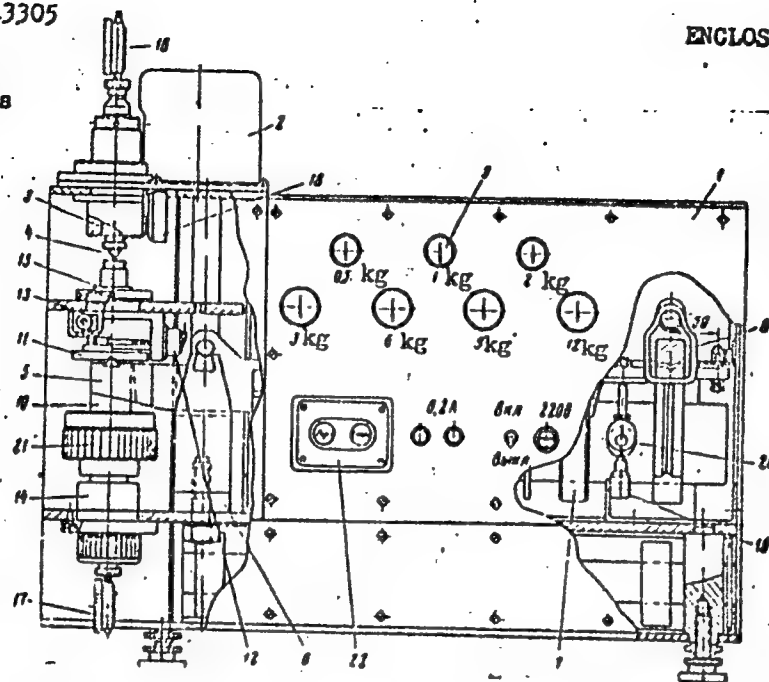
2/3

Card

ACCESSION NR: AP4043305

Fig. 1. Schematic drawing of hardness tester

ENCLOSURE: 01



Card 3/3



FROLOV, P.V.; ROMERO, S.Ya.; ZAVGORODNIY, V.K.

Power saving measures in press sections for plastic products.  
Prom.energ.13 no.2:22 F '58. (MIRA 11:1)  
(Power presses) (Electric power)

PROLOV, P.V., inzh.

Automatic regulator of condensate recirculation, Elek. sta. 29  
no. 4:16-18 Ap '58. (MIRA 11:8)  
(Steam power plants—Equipment and supplies)

ZEMTSOVSKIY, B.M., inzh.; PROLOV, P.V., inzh.

"Fuel-air" regulator equipped with a "steam-fuel" adjuster. Elek.  
sta. 30 no.2:8-10 P '59. (MIRA 12:3)  
(Governors (Machinery))

SOV/96-59-4-8/21

AUTHOR: ~~Prolov, P.V.~~ Engineer

TITLE: Ensuring Equal Loading on Induced Draught Fans and Air Blowers Without Using Follow-up Systems (Obespecheniye ravnoy nagruzki dymososov i ventilyatorov bez primeneniya sledyashchikh sistem)

PERIODICAL: Teploenergetika, 1959, <sup>6</sup>Nr 4, pp 44-45 (USSR)

ABSTRACT: The servo-motors operating the control mechanisms of induced draught fans and air blowers operating in parallel are usually made to operate simultaneously by the use of follow-up auto-regulator systems. This brief article describes a control circuit which under certain conditions can ensure equal loading on the induced draught fans and air blowers without requiring follow-up devices. Its special feature is that each set operating in parallel is controlled by its own auto-regulator which has firm feed back. To prevent irregularities the regulators receive a second signal that depends on the total load on the two induced draught fans or air blowers. The scheme is illustrated diagrammatically in Fig.1, each of the two fans has its own draught regulator, which may be of any preferred construction. Somewhat reduced air pressure is

Card 1/3

SOV/96-59-4-8/21

Ensuring Equal Loading on Induced Draught Fans and Air Blowers  
Without Using Follow-up Systems

maintained below the membranes 3 and 4 by means of the auxiliary tube 5 which connects the boiler gas way to atmosphere. This tube 5 has two throttles, the first of which establishes the necessary air flow in the tube and the second of which is brought out to the boiler panel and alters and corrects the static characteristics of the regulators. As usual the upper sides of the membranes of the regulators are connected to the furnace. This system has given prolonged good service. Graphs of the static characteristics are given in Fig.2 and of transient conditions in Fig.3. A defect of the system is that it is necessary to alter the amount of the additional signal on changing from two induced draught fans to one. This adjustment can easily be made manually and similar

Card 2/3

DOV/96-59-4-8/21

Ensuring Equal Loading on Induced Draught Fans and Air Blowers  
Without Using Follow-up Systems

corrections can be made for various kinds of firing in  
the furnace. Methods of simplifying the scheme are briefly  
explained. There are 3 figures.

ASSOCIATION: Ienenergo

Card 3/3

SIVFRGIN, Yu.M.; RUSSIYAN, Ye.K.; FROLOV, P.V.; BUKOLOV, Yu.Ye.

Device for determining the hardness of plastics. Zav. lab. 30  
no.8:1021 '64. (MIRA 18:3)

1. Institut khimicheskoy fiziki AN SSSR.

L 40989-65 EWT(m)/EPF(c)/EWP(j)/T  
ACCESSION NR: AR5005645

Pc-4/Pr-4 RM

S/0081/04/000/022/S055/S055

SOURCE: Ref. zh. Khimiya. Abs. 223373

AUTHOR: Silvergin, Yu. M.; Frolov, P.V.

TITLE: Determining the hardness of polymeric materials

CITED SOURCE: Vestn. tekhn. i ekon. inform. N.-i. in-t tekhn-ekon. issled. Gos. kom-ta khim. i nef. prom-sti pri Gosplane SSSR, no. 1, 1964, 27-28

TOPIC TAGS: hardness measurement, hardness meter, polymer hardness, polymerization control, static load

TRANSLATION: The principle on which the operation of the TP-1 hardness meter is based is that an indenter is pressed into a sample of the material to be tested at a constant rate of deformation of 0.04 mm/sec. until the stress on the material becomes equal to the selected load. At that moment, the drive gear is automatically disconnected, the gradual movement of the indenter is stopped, and the sample remains under the influence of a static load. The sample is subjected to this load for a given period of time. The device permits the use of loads varying from 0.5 to 48.5 kg at intervals of 0.5 kg. Numerical data are presented for the hardness of various polymeric materials (thickness 6.5-12 mm)

Card 1/2



L 40988-65

ACCESSION NR: AR5005645

mm) as determined with the aid of the TP-1 device with a static load acting for 3 minutes. This device permits materials to be studied which have a broad range of hardness. For materials in which the hardness is  $< 10 \text{ kg/mm}^2$ , the duration of action of the static load should be  $> 3$  minutes, while with a hardness  $> 10 \text{ kg/mm}^2$  1 minute is sufficient. This method of determining the hardness can also be used for controlling the conditions of polymerization and for preparing polymers with optimum properties. Z. Ivanova

ENCL: 00

SUB CODE: MT, IE

*llc*  
Card 2/3

SIVERGIN, Yu.M.; PROLOV, P.V.; RUSSIYAN, Ye. K.

Standardize the method for determining the hardness of plastics.  
Standartizatsiia 29 no. 11:51-52 N '65 (MIRA 19:1)

1. FROLOV, P.V.
2. USSR (600)
4. Oilseed Plants
7. New varieties of oil crops. Dost. sel'khoz. no. 10. 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

FROLOV, P. V.

Peanuts

Cultivation of peanuts on irrigated soil., Sov. agron., 10, no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952, UNCLASSIFIED.

1. FROLOV, P. V.
2. USSR 600
4. Rape (Plant)
7. Obtaining high yields of rape, Do t. sel'khoz, No. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

FROLOV, P. V. and BOYEV, N. D.

"Extending the Cultivation of Seed Flax, Mustard, and Sunflowers," Sel.  
i Sem., 19, No.2, 1952

1. FROLOV, P. V.
2. USSR (600)
4. Rape (Plant)
7. Best varieties of winter rape adapted to certain districts. Sel.i sem. 19 no. 12, 1952.

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

Vozdelyvanie kunzhuta i arakhisa v usloviakh orosheniia (Irrigated cultivation of sesame and peanuts). Opyt gosudarstvennykh sortouchastkov i peredovykh kolkhazov. Moskva, Sel'khozgiz, 1953. 45 p.

SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954



1. FROLOV, P. V.; KOPTEV, G. S.

2. USSR (600)

4. Sesame

7. Growing sesame under irrigation. Sov. agron. 11, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

L 62709-65 EPF(c)/EPA(s)-2/EWA(h)/EWP(j)/EWP(k)/EWT(d)/EWT(l)/EWT(m)/EWP(h)/T/  
EWP(l)/EWA(d)/EWP(w)/EWP(v) Po-l/Pf-l/Pr-l/Ps-l/Pl-7/Peb EX/PH/HH/JD  
ACCESSION NR: AP5019030 UR/0286/65/000/012/0065/0066  
666.189 22.002.5

AUTHOR: Gavrilov, I. K.; Filippov, D. A.; Strukov, V. M.; Biatov, V. B.; Shalimov,  
A. S.; Vul, N. I.; Ivanov, A. M.; Belyakov, V. V.; Frolov, R. A.; Khantsis, R. Z.;  
Andriyevskaya, G. D.; Zelenskiy, E. S.; Kuperman, A. M.; Dobrovolskiy, A. K.;  
Dzhereliyevskiy, B. S.

TITLE: Winding machine. Class 32, No. 172009/5

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 65-66

TOPIC TAGS: glass reinforced plastic, plastic filament, fiber glass, filament  
winding, winding machine, filament wound article

ABSTRACT: This Author Certificate introduces a machine for fabrication of glass-  
reinforced plastic articles by filament winding. The machine includes a drive with  
a reductor and a mandrel mounted on a rotating shaft. To fabricate spherical shapes  
the machine is equipped with profiled guides transmitting to the mandrel a tilting  
motion around the vertical axis simultaneously with a rotation around the axis (see  
Fig. 1 of the Enclosure). Orig. art. has: 1 figure. [RD]

Card 1/2

L 62709-65

ACCESSION NR: AP5019030

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta po aviatsionnoy tekhnike SSSR  
(Organization of the State Committee on Aviation Engineering, SSSR) 44.55

SUBMITTED: 19May64

ENCL: 01

SUB CODE: MT, IC

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4064

Card 2/3

L 11260-66 (A) EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(j)/T/EWP(k)/EWA(h)/ETC(m) EM/HW/RM

ACC NR: AP5028475 SOURCE CODE: UR/0286/65/000/020/0056/0057

INVENTOR: Gavrilov, I. K.; Filippov, D. A.; Strukov, V. M.; Biatov, V. S.; Shalimov, A. S.; Vul. N. I.; Ivanov, A. S.; Belyakov, V. V.; Frolov, A. S.; Khnntsis, R. Z.; Andriyevskaya, G. G.; Zelenskiy, E. S.; Kuperman, A. M.; Dobrovol'skiy, A. K.; Dzhhereliyevskiy, A. B.

ORG: none

TITLE: Method of fabricating fiberglass shells. Class 32, No. 175624

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1065, 56-57

TOPIC TAGS: shell, cylindrical shell, fiberglass shell, shell fabrication, fiberglass winding, solid fuel rocket, rocket case

ABSTRACT: This Author Certificate introduces a method of fabricating shells from fiberglass wound on a pattern which is then melted out or dissolved. To increase the strength of the shell, the winding is combined with the stretching of fiber by means of a fiber guide which rotates around the pattern. [DV]

SUB CODE: 11, 19 SUBM DATE: 02Jul64/ ATD PRESS: 471

HW  
Card 1/1

FROLOV, S.; KOSTIN, V.; VARVARIN, N.

Production organization and the establishing technical  
standards. Sots. trud 8 no.1:89-91 Ja '63. (MIRA 16:2)  
(Machinery industry--Production standards)

FROLOV, S.

One thousand television receivers to surpass the plan. Radio  
no.4:3-4 Ap '61. (MIRA 14:7).

1. Sekretar'partkoma Moskovskogo zavoda televizionnoy apparatury.  
(Television—Receivers and reception)

107-57-3-18/64

AUTHOR: Frolov, S.

TITLE: A Polar Radio Operator (Polyarnyy radist)

PERIODICAL: Radio, 1957, Nr 3, p 16 (USSR)

ABSTRACT: A short life story of Oleg Arkhipovich Kuksin is presented in the article. In 1927, Kuksin was in the seventh grade of the Iman high school, near Vladivostok. At his suggestion, a study group of Obshchestvo Druzey Radio (Friends-of-the-Radio Society) was opened at his school; the schoolboys built a few crystal and tube radio receivers in those early days of radio in the USSR. In 1930, Kuksin joined a two-year School of Marine Radio Operators in Vladivostok. After graduation from the school, he was appointed as a senior radio operator on the "Litke" icebreaker which was subsequently sent to Kolyma as an expedition. This voyage took eighteen months. In the summer of 1934, Kuksin, as a senior radio operator, was on the "Litke" again during its famous cruise from Vladivostok to Murmansk and Leningrad which took eighty-three days. He was awarded the order of Trudovogo Krasnogo Znameni (Red Banner of Labor) at that time. During the next three years, Kuksin served as a marine radio operator on various ships of the Baltic state marine lines; he visited

Card 1/3

107-57-3-18/64

A Polar Radio Operator

England, Scotland, Ireland, Belgium, the Netherlands, and Egypt. In 1937, Kuksin took part in the landing of a scientific expedition at the North Pole. He was a radio operator in an airplane piloted by A. D. Alekseyev. The next winter, he stayed on Rudolf Island keeping communication with the drifting station "Severnny Polyus" (North Pole). His correspondent on the "Severnny Polyus" was Ernst Krenkel. Two years later, Kuksin again spent the winter on Rudolf Island. This time, he kept communication with the drifting icebreaker "Sedov." As a member of the crew of the well-known polar flyer Zadkov, Kuksin took part in dozens of long-distance flights in the Arctic region. In 1949, he was awarded the title of Hero of Socialist Work. Now (1957), Kuksin is working in the Antarctica as a radio operator of the crew of P. P. Moskalenko, Commander of an air squadron. He is taking part in the work of the Second Antarctic Scientific Expedition of the USSR within the framework of the International Geophysical Year.

Since 1947, Kuksin has been a member of the Central DOSAAF Radio Club. His short-wave radio amateur station UX1CP is known to many radio amateurs. He often made contacts with Saltykov (Leningrad).

Card 2/3



107-57-3-18/64

A Polar Radio Operator

There is one photo (of O. A. Kuksin) in the article.

Card 3/3

FROLOV, S.

BYKOV. A., kand.tekhn.nauk.; FROLOV, S., kand.tekhn.nauk.

Sized fabrics (from "Skinner's Silk and Rayon Record" no.1, 1957).  
Leg.prom. 17 no.8:3 of cover Ag '57. (MIRA 10:10)  
(Sizing (Textile))

VERNIKOVSKIY, M.; FROLOV, S. (Moskovskaya oblast')

Make military science attractive to everyone. Voen. znan. 35  
no.5:24-26 My '59. (MIRA 12:12)  
(Moscow Province--Military education)

VARVARIN, N.; FROLOV, S.

Establishment of increased work norms in automatic and semiautomatic welding. *Biul.nauch.inform.*; trud i sar.plata no.12134-38 '59.

(MIRA 13:10)

(Welding—Production standards)

FROLOV, S.; VARVARIN, N.; REKUSHIN, A.; MASIOV, L.

Developing documentation for standard technical norms. Sots. trud  
5 no.9:78-84 S '60. (MIRA 13:10)  
(Shipbuilding--Production standards)

FROLOV, S. (g.Yalta)

At the signal of the red rocket. Voen.znan. 38 no.1:34 Ja  
1962. (MIRA 15:2)

(Black Sea---Rescue work)

SAHOYLOVA, Z.T.; SMIRNOVA, S.; FROLOV, S.; TALIK, L.I.; ZAPADNYUK, V.I.

Brief news. Farm. i toks. 25 no.4:502-508 J1-Ag '62. (MIRA 17:10)

PROLOV, S.A.

~~SECRET~~

Afferent influences in functions of the salivary glands. J.Physiol.USSR  
'52, 38, 619-627. (MLRA 5:11)  
(BA - AIII Ap '53:458)



FROLOV, S.A.

137-58-1-1729

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 234 (USSR)

AUTHOR: Frolov, S. A.

TITLE: ~~On the Practicability~~ of the Employment of Periodic-profile Concrete Reinforcement of Bessemer Steel (O ratsional'nosti primeneniya armatury periodicheskogo profilya iz bessemerovskoy stali)

PERIODICAL: V sb.: Prochnost' i avtomatizatsiya svarki (MVTU, 71).  
Moscow, Mashgiz, 1957, pp 64-73

ABSTRACT: The results of studies at the MVTU (Moscow Technical College) im. Bauman and at the TsNIIS with regard to comparative investigation of the properties and weldability of Bessemer steel reinforcements (R) for reinforced concrete are presented. Comparison of Bessemer steel BSt. 5 and open hearth MSt. 5 showed the tendency of R of MSt. 5 to brittle fracture to be greater than that of R of BSt. 5. The content of harmful inclusions (P, S, N<sub>2</sub>, O<sub>2</sub>) in R of BSt. 5 is higher than in R of MSt. 5, and these impurities are unevenly distributed across the cross section of rolled sections. They are chiefly concentrated in the central areas of the cross section. The surface zones of R of MSt. 5 and BSt. 5 have identical tendencies to the formation of hot

Card 1/2

137-58-1-1729

On the Practicability of the Employment of Periodic-profile Concrete (cont.)

cracks under arc welding with OMM 5 electrodes. In welding with UP-2/45 electrodes, BSt. 5 steel has a greater resistance to the formation of hot cracks than does MSt. 5 steel. R with periodic profile, rolled from BSt. 5 Bessemer steel in accordance with a new technology, completely satisfies the requirements of GOST. The use of R of Bessemer steel is economically preferable over that of R of open-hearth steel, and BSt. 5 steel has a higher  $\sigma_s$  than MSt. 5 steel.

A. S.

1. Concrete reinforcing steel--Properties 2. Concrete reinforcing steel  
--Investigation 3. Concrete reinforcing steel--Test methods 4. Concrete  
reinforcing steel--Test results

Card 2/2

FROLOV, S. A. (Cand. Tech. Sci.)

"Influence of Weld Deposits on the Strength of a Joint in  
Spot Resistance Welding of Circular Rods," p. 128 in book  
Reports of the Interuniversity Conference on Welding, 1956.  
Moscow, Mashgiz, 1958, 266pp.

S/125/60/000/012/004/014  
A161/A030

AUTHORS: Brodskiy, A.Ya; Fridman, A.M; Yermanok, Ye.Z; Frolov, S.A.

TITLE: Resistance Welding of 30KhG2S Reinforcement Steel for Pre-Stressed Reinforced Concrete Structures

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 12, pp. 28 - 36

TEXT: The weldability of 30XГ2С (30KhG2S) reinforcement steel in resistance welding machines has been investigated and practical recommendations are given. The standard composition of this steel (GOST 5058-57) is: 0.26 - 0.35% C; 0.6 - 0.9% Si; 1.2 - 1.6% Mn; 0.6 - 0.9% Cr; not above 0.3% Ni and Cu (each); the mechanical properties: conditional yield limit  $\sigma_{0.2} \geq 60 \text{ kg/mm}^2$ ; ultimate strength  $\sigma_s > 90 \text{ kg/cm}^2$ ; elongation  $\delta_5 > 6\%$ ; bending angle  $45^\circ$  in cold state around a mandrel with diameter equal to 5 diameters of the tested rod. Rods used for experiments were periodical, with 14 - 28 mm diameter, produced by the Stalino and Magnitogorsk metallurgical works. Round test specimens with sharp notch in different heat affected zones, so-called ЦНИПС (T-NIPS specimens) were used with success first or all with other reinforcement steel, but had to be replaced with Menazhe (Russian transliteration) notch specimens for 30KhG2S because of its very high notch sensitivity. It proved also very sensitive to inaccuracy of connection

Card 1/4

V